

Claims

- [c1] 1. An advanced automobile window-opening operation device consisting of an electromechanical set that includes an activation switch and electronic switching circuitry that can operate on an electrical motor mechanically associated to the vehicle's window-opening mechanism (6), characterized because the mentioned switch operates on the window opening mechanism (6) by means of the aforementioned electronic switching circuitry, which includes a switching board (3) ("Door Switch Node"), provided with communication through a multi-signal channel (4) or bus to the electronic system of the vehicle and connected through another multi-signal channel or bus to the activation and control board (2) ("Smart Power Windows Motor") of the electric motor (1) of the window-opening device (6), being these circuits connected to the vehicle's chassis (5).
- [c2] 2. A device, according to claim 1, characterized because the switch is unique and multi-position and has two operation modes, one manual for low displacement speeds (6) and another one automatic for high speed of displacement of the window opening device.

- [c3] 3. A device, according to claim 1, characterized because the described device permits the operation of the panels of one door from the opposite door by means of the mentioned communication means, through multi-signal channel or bus, with the vehicle's electronic system.
- [c4] 4. A device, according to claim 1, characterized because it includes a stop anti-catch feature controlled by means of the window opening device's (6) electric motor (1) operation and control board (2).
- [c5] 5. A device, according to claim 2, characterized because it includes a stop anti-catch feature controlled by means of the window opening device's (6) electric motor (1) operation and control board (2).
- [c6] 6. A device, according to claim 3, characterized because it includes a stop anti-catch feature controlled by means of the window opening device's (6) electric motor (1) operation and control board (2).
- [c7] 7. A device, according to claim 1, characterized because it operates on sunroofs in addition to the vehicle's door windows.
- [c8] 8. A device, according to claim 2, characterized because it operates on sunroofs in addition to the vehicle's door

windows.

- [c9] 9. A device, according to claim 3, characterized because it operates on sunroofs in addition to the vehicle's door windows.
- [c10] 10. A device, according to claim 1, characterized because the mentioned switch is shaped like a lever switch or joy stick to rotate in manual mode and to move forward and backward when in automatic mode.
- [c11] 11. A device, according to claim 2, characterized because the mentioned switch is shaped like a lever switch or joy stick to rotate in manual mode and to move forward and backward when in automatic mode.
- [c12] 12. A device, according to claim 3, characterized because the mentioned switch is shaped like a lever switch or joy stick to rotate in manual mode and to move forward and backward when in automatic mode.